

Infertility and personality of the late reproductive age patients with the endometrial pathology

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The high degree of social maladjustment among infertile women of the late reproductive age points out to the special importance of psychological factors in the diagnosis and treatment of this category of patients. In order to study the specificity of the personal profile of women of late reproductive age, infertility, examined 169 patients with different clinical forms of endometrial pathology. Endometrial polyp was detected in 97 (57.4%), endometrial hyperplasia – in 40 (23.7%), chronic endometritis – in 61 (36.1%), adhesions – in 11 (6.5%), adenomatosis – at 3 (1.8%) patients. Combined pathology of the endometrium was observed in 45 (26.6%) women. Infertility suffered 62 (36.7%) patients: primary infertility was observed in 21 women, the secondary – at 41. It was found that in secondary infertility case the low spontaneous aggression was observed in 1.8 times more often, less shyness – 6.1 times more often than high degree of openness - 1.8 times less that high emotional lability – 2.4 times less often than in the primary infertility. In patients with secondary infertility, having children, 3.4 times less often high degree of sociability, 3.1 times more often – high neurosality, 1.4 times less – low spontaneous aggressiveness, 4.3 times more often – low extraversion compared to the second infertile women without children. Severe depression was detected in every fourth patient fertile and only in rare cases, infertility. It is concluded that in infertile women of late reproductive age with abnormal endometrial much less observed depression and more frequent such personal qualities as sociability, extraversion and masculinity; patients with primary infertility largely spontaneous inherent aggressiveness, shyness and emotional lability compared to the secondly infertile; dysfunctional personality traits are least likely to occur in patients with secondary infertility; personality profile secondarily infertile women with children, close to the profile of the person fertile reproductive age patients with pathology of the endometrium.

Key words: endometrial pathology, late reproductive age, infertility, questionnaire FPI.

Long duration of gynecological diseases has a destabilizing effect on the emotional state of women; sometimes psychological discomfort reaches the level of diagnosed mental disorder [3]. According to E.A. Potemkina [4], about half of patients with chronic gynecological diseases suffer non-psychotic mental disorders; the vast majority of those mental disorders are adjustment and specific personality disorders. The specifics of the clinical picture of mental disorder for a particular form of chronic gynecological diseases established only in relation to infertility, significantly more comorbid disorders for adaptation [4]. The structure of the adaptational and personal pathological manifestations in patients with chronic gynecological diseases, are anxiety, gipotimii, passivity and lack of confidence [3, 4].

Adam M. [1] research suggests that maladaptive behavior of infertile women increases the internal stress and leads to dysfunction of the autonomic nervous system. Long-term internal stress causes the development of high-level of alertness, the release of corticosteroids; and in the future - immunodeficiency state, which leads to an exacerbation of chronic somatic diseases.

The characteristic features of borderline mental disorders detected in infertile women, should be attributed to the prevalence of clinical

anxiety-depressive and asthenic-vegetative symptoms [1, 2, 7, 8, 10–12], a negative self-image, self-incriminating trends overall subjective disadvantage [7], the use escapist strategies [10].

These adjustment disorder may be caused by the influence of stressful interpersonal relationships and personality disorder, and not only by the influence of infertility. Changes in social roles, the invariance of the values and attitudes of contemporary society increase the contradictions between biologically determined female reproductive function, a multimedia model of sex-role behavior and the specificity of the cultural and historical experience of the ethnic groups [6].

Stressfulness of chronic gynecological diseases, interpersonal problems and conflicts of interest increasing in the middle age, as this period coincides with the peak of a career woman. Kolesnikov DB [2] indicates a high degree of social maladjustment infertile women of advanced reproductive age and the special importance of psychological factors in the diagnosis and treatment of such patients.

Objective: to study the specifics of the personal profile of women in the late reproductive age who suffering from infertility due to endometrial pathology (PE).

MATERIALS AND METHODS

The study includes 169 women 35–45 years with different clinical forms of PE. Endometrial polyps detected in 97 (57.4%), endometrial hyperplasia – in 40 (23.7%), chronic endometritis – in 61 (36.1%), adhesions – in 11 (6.5%), adenomatosis – at 3 (1.8%) patients. Combined PE observed in 45 (26.6%) women. Infertility suffered 62 (36.7%) women – they made up the group B, the group F includes the remaining 107 (63.3%) patients. Primary infertility was observed in 21 (12.4%), women (Group B1), secondary – in 41 (24.3%), women (Group B2). In group B2 had no children 17 patients (group B2n) had children in 24 patients (group B2d).

For the diagnosis of mental personality traits that affect the processes of social adaptation and regulation of behavior, the questionnaire FPI [5] used which contains 114 questions be grouped into nine basic scales («neurosality», «spontaneous aggression», «depression», «irritability», «communicative», «balance», «Reactive aggression», «shy», «openness») and integrating three scale («introversion-extroversion», «emotional lability», «masculinity-femininity»).

Data assessment been done using the methods of variation statistics (median, interquartile range), Mann-Whitney, χ^2 -test and Fisher's exact test.

RESULTS AND DISCUSSION

Median age in the group F was 39 (36–41), in group B – 38 (37–40) years, $p>0.05$; in group B1 – 37.5 (36–40) and in the group of B2 – 38 (37–40) years, $p<0.05$; group B2n – 38.5 (37–39) in group B2d – 38 (37–40) years, $p>0.05$.

The study of psychometric scales FPI showed that in group B respondents with high depressive met in 7.5 times less likely ($p<0.001$), than among fertile patients (Table). But the high rate of sociability, extraversion and masculinity in group B, in contrast, considerably higher than that in group F: 1.7 times ($p<0.03$), 1.8 times ($p<0.002$) and 4.6 fold ($p<0.02$) times respectively.

Comparative analysis of the personality profiles of groups B1 and B2 found that the secondary infertility is low spontaneous aggression

Personality profile late reproductive age patients with PE as a function of infertility factors, n (% P)

Scale questionnaire FPI	The diagnostics of infertility		From the type of infertility		From the presence of children in the group B2	
	Group B, n=62	Group F, n=107	Group B1, n=21	Group B2, n=41	Group B2n, n=17	Group B2d, n=24
High neurosality	27 (43,5%)	44 (41,1%)	11 (52,4%)	16 (39,0%)	3 (17,6%) ^{d1}	13 (54,2%)
Low spontaneous aggressiveness	41 (66,1%)	69 (64,5%)	9 (42,9%)	32 (78,0%) ¹¹	16 (94,1%) ^{*d111}	16 (66,7%)
High depression	2 (3,2%) ^{***}	26 (24,3%)	0 (0,0%) [*]	2 (4,9%) ^{**}	0 (0,0%) [*]	2 (8,3%)
High irritability	22 (35,5%)	26 (24,3%)	10 (47,6%) [*]	12 (29,3%)	4 (23,5%)	8 (33,3%)
High communicative	24 (38,7%) [*]	25 (23,4%)	7 (33,3%)	17 (41,5%) [*]	12 (70,6%) ^{***d1}	5 (20,8%)
Low balance	29 (46,8%)	52 (48,6%)	11 (52,4%)	18 (43,9%)	6 (35,3%)	12 (50,0%)
Low reactive aggression	35 (56,5%)	46 (43,0%)	11 (52,4%)	24 (58,5%)	12 (70,6%) [*]	12 (50,0%)
Low shyness	13 (21,0%)	15 (14,0%)	1 (4,8%)	12 (29,3%) ^{*1}	5 (29,4%) ¹	7 (29,2%) ¹
High transparency	27 (43,5%)	35 (32,7%)	13 (61,9%) [*]	14 (34,1%) ¹	4 (23,5%) ¹	10 (41,7%)
High introversion	18 (29,0%) ^{**}	57 (53,3%)	4 (19,0%) ^{***}	14 (34,1%) [*]	2 (11,8%) ^{***d}	12 (50,0%) ¹
High emotional lability	20 (32,3%)	36 (33,6%)	11 (52,4%)	9 (22,0%) ¹	2 (11,8%) ¹¹	7 (29,2%)
High masculinity	8 (12,9%) [*]	3 (2,8%)	3 (14,3%) [*]	5 (12,2%) [*]	4 (23,5%) ^{***}	1 (4,2%)

Notes: 1. To determine the significance of differences was used χ^2 criterion and Fisher's exact test;

2. *, **, *** – significant difference from the group F;

¹, ¹¹, ¹¹¹ – from group B1; ^d, ^{dd} – group B2n from B2d group (respectively $p < 0,05$, $p < 0,01$ and $p < 0,001$).

was observed in 1.8 times likely ($p < 0,007$), low shyness – 6.1 times more likely ($p < 0,03$), high transparency – 1.8 times less ($p < 0,04$), high emotional lability – 2.4 times less ($p < 0,007$), than in the primary infertility (Table).

In the secondary infertile women with children compared to the secondary infertile women without children is 3.4 times lower sociability ($p < 0,002$), 3.1 times more frequently – high neurosality ($p < 0,02$), 1.4 lower spontaneous aggression ($p < 0,04$), 4.3 times likely low extraversion ($p < 0,04$). Personality profile of respondents B2d group hadn't significant differences from the profile of the fertile patients and the very little differ from the sample with primary infertility. But women B2n group showed the lowest neurotic minimum spontaneous aggressiveness, sociability highest and lowest introversion and emotional lability of all the investigated samples. This profile corresponds to a high masculinity, and, indeed, one in four women had a group B2n this psycho. In Group F B2d and it was observed in a few cases – respectively 5.6 and 8.7 times less than in the second sample of infertile patients without children (Table).

Summarizing the results of our study, first of all it should be noted the extremely low level of depression patients with infertility. Severe depression was detected in every fourth fertile patient and only in rare cases in infertile one (odds ratio = 9.6; 95% CI 5,3–14,0!). That is, infertile patients were more characteristic of vitality, energy and resourcefulness, flexibility and versatility of the mind, ease in interpersonal relationships, self-confidence, and success in the implementation of the various activities that require activity, enthusiasm and determination [5].

The special features of infertile women should also ranked fairly low introversion, which is typical for people active, ambitious, seeking public recognition, leadership, had no difficulty in establishing contacts, willingly taking on the leading role in relations with others, have a great social dexterity, live speech, high activity, ably estimating relationships in a team and are able to use other people to achieve their own goals [5]. Therefore, for infertile patients and were characterized by high values of sociability scale, which suggests they have expressed the need for communication and constant readiness to meet her. Such individuals are easy to agree with people who have a wide circle of friends, always show interest in the fate of his comrades, like work and play in a team, actively help others, are actively involved in their lives [5].

Another distinctive feature of infertile women in our study had an increased frequency of masculine psycho. These group of respondents characterized by man like mental activity, with its braveness, entrepre-

neurships, the desire for self-assertion, riskiness, quick and decisive actions without sufficient deliberation and their justification. Their interests are narrow and practical, realistic and sober judgment, in the behavior is simplistic. They try to avoid complex, intricate situations badly understand the true motives of their own and other people's behavior, easy on their weaknesses, are not prone to reflection and to self-assessment, enjoy sensual pleasures [5].

In the available literature, we found no publications confirm our findings that levels of depression, introversion and femininity in infertile patients below and sociability – higher than in fertile women. The similar to our findings is M. Bidzan et al. [9] according to which the viability of the reproductive function has no significant relationship with the personal profile of a woman.

Thus, evaluating the impact factor infertility personality profile middle-aged women with PE, we concluded that to improve the emotional and motivational side of personality (at the very end is the foundation of the personality) fertile women need more.

The profile of the personality was non-uniform in the sample of patients with infertility. On the background of primary infertility low spontaneous aggressiveness was rarely observed, in other words, in this pathology often met patients with elevated psychopation, creates prerequisites for impulsive behavior, a lack of social conformity, with poor self-control, a lack of socialization, with inability or unwillingness to discourage or postpone the satisfaction of their needs. Initially infertile women were more shy and open, that is more likely to react to stressful life situations of ordinary passive-defensive type, more disturbing, shackled, insecure, highly self-critical, often have difficulty in social contacts and at the same time striving for confidence-frank interaction with other people. All this combined with the high emotional lability, pointing to frequent mood swings, anxiety, irritability, lack of self-regulation. Such women have a fine spiritual organization, sensitive, vulnerable, have the artistic perception of the environment, immersed in a fantasy, poetry and music. Real life is easy to hurt them [5].

As part of our study stand out more than any other psychotype infertile women in the obstetric history of abortions and ectopic pregnancies with no delivery. Their personality profile looks quite harmonious: aggressive sociable extroverts with low neuroticism and emotional lability. Only the highest frequency in the masculine psycho certain extent corresponded with reproductive problems these patients.

Finally, the most surprising result of the comparison looked personality scales infertile women with children and fertile female patients. The

identity of the personality profiles of the two samples against many statistically significant differences in the other pair-wise comparisons suggests that having children is more closely associated with personality characteristics of patients we studied, rather than a factor of infertility.

FINDINGS

1. Women of late reproductive age with PE with the background of infertility less often observe depression and more frequently such personal qualities as sociability, extraversion and masculinity.

2. The firstly infertile women in the late reproductive years with PE compare with the secondly infertile women with PE is more

inherent spontaneous aggressiveness, shyness, openness and emotional lability.

3. Among the women of late reproductive age with PE dysfunctional personality traits are least likely to occur in the secondly infertile patients who do not have children. They are not aggressive, sociable, less neurotic, and demonstrate a low emotional lability. A characteristic feature of these women is also an increased frequency of extraversion and masculinity.

4. Personality profile of the late second infertile women of reproductive age with PE with children, close to the profile of the individual fertile female patients of reproductive age with late PE.

**Бесплодие и структура личности пациенток позднего репродуктивного возраста с патологией эндометрия
С.М. Корниенко**

Высокая степень социальной дезадаптации инфертильных женщин позднего репродуктивного возраста свидетельствует об особой значимости психологического фактора в диагностике и лечении данной категории пациенток. С целью изучения специфики личностного профиля женщин позднего репродуктивного возраста, страдающих бесплодием, обследованы 169 пациенток с различными клиническими формами патологии эндометрия. Полип эндометрия выявлен у 97 (57,4%), гиперплазия эндометрия – у 40 (23,7%), хронический эндометрит – у 61 (36,1%), синехии – у 11 (6,5%), аденоматоз – у 3 (1,8%) пациенток. Сочетанная патология эндометрия отмечалась у 45 (26,6%) женщин. Бесплодием страдали 62 (36,7%) пациентки: первичное бесплодие отмечалось у 21 женщины, вторичное – у 41. Установлено, что при вторичном бесплодии низкая спонтанная агрессивность отмечалась в 1,8 раза чаще, низкая застенчивость – в 6,1 раза чаще, высокая открытость – в 1,8 раза реже, высокая эмоциональная лабильность – в 2,4 раза реже, нежели при первичном бесплодии. У пациенток с вторичным бесплодием, имеющих детей, в 3,4 раза реже наблюдалась высокая общительность, в 3,1 раза чаще – высокая невротичность, в 1,4 раза реже – низкая спонтанная агрессивность, в 4,3 раза чаще – низкая экстраверсия по сравнению с вторично бесплодными женщинами, не имеющими детей. Выраженная депрессивность выявлена у каждой четвертой фертильной пациентки и только в единичных случаях при бесплодии. Сделаны выводы, что у бесплодных женщин позднего репродуктивного возраста с патологией эндометрия значительно реже наблюдается депрессивность, и чаще отмечаются такие личностные свойства, как общительность, экстраверсия и маскулинность; пациенткам с первичным бесплодием в большей степени присущи спонтанная агрессивность, застенчивость и эмоциональная лабильность по сравнению с вторично бесплодными; дисфункциональные черты личности реже всего встречаются у пациенток с вторичным бесплодием; профиль личности вторично бесплодных женщин, имеющих детей, близок к профилю личности фертильных пациенток позднего репродуктивного возраста с патологией эндометрия.

Ключевые слова: патология эндометрия, поздний репродуктивный возраст, бесплодие, опросник FPI.

**Безпліддя і структура особистості пацієнток пізнього репродуктивного віку з патологією ендометрія
С.М. Корнієнко**

Високий ступінь соціальної дезадаптації інфертильних жінок пізнього репродуктивного віку свідчить про особливу значущість психологічного чинника в діагностиці та лікуванні даної категорії пацієнток. З метою вивчення специфіки особистісного профілю жінок пізнього репродуктивного віку, які страждають на безпліддя, обстежені 169 пацієнток з різними клінічними формами патології ендометрія. Поліп ендометрія виявлено у 97 (57,4%), гіперплазія ендометрія – у 40 (23,7%), хронічний ендометрит – у 61 (36,1%), синехії – у 11 (6,5%), аденоматоз – у 3 (1,8%) пацієнток. Поєднану патологію ендометрія відзначали у 45 (26,6%) жінок. На безпліддя страждали 62 (36,7%) пацієнтки: первинне безпліддя зазначалося у 21 жінки, вторинне – у 41. Установлено, що при вторинному безплідді низька спонтанна агресивність відзначалася в 1,8 разу частіше, низька сором'язливість – в 6,1 разу частіше, висока відкритість – в 1,8 разу рідше, висока емоційна лабільність – в 2,4 разу рідше, ніж при первинному безплідді. У пацієнток із вторинним безпліддям, які мають дітей, в 3,4 разу рідше спостерігалася висока товарицькість, в 3,1 разу частіше – високу невротичність, в 1,4 разу рідше – низька спонтанна агресивність, в 4,3 разу частіше – низька екстраверсія порівняно з вторинно безпліддими жінками, які не мають дітей. Виражена депресивність виявлена у кожної четвертої фертильної пацієнтки і лише в поодиноких випадках при безплідді. Зроблено висновки, що у безплідних жінок пізнього репродуктивного віку з патологією ендометрія значно рідше спостерігається депресивність і частіше відзначаються такі особистісні властивості, як товарицькість, екстраверсія і маскулінність; пацієнткам з первинним безпліддям більшою мірою притаманні спонтанна агресивність, сором'язливість, емоційна лабільність у порівнянні з вторинно безпліддими; дисфункціональні риси особистості найрідше зустрічаються у пацієнток з вторинним безпліддям; профіль особистості вторинно безплідних жінок, які мають дітей, близький до профілю особистості фертильних пацієнток пізнього репродуктивного віку з патологією ендометрія.

Ключові слова: патологія ендометрія, пізній репродуктивний вік, безпліддя, опитувальник FPI.

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